

Birds of the Manukau Harbour

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Significance of the Manukau for shorebirds

- About 250,000 waders occur in NZ
- Up to 60,000 of these occur in the Manukau
- Half are resident species and half are Arctic migrants
- A significant site for some threatened species



Photo: Geoff Moon

Wrybill



Photo: Geoff Moon

Bar-tailed godwit



NZ resident species



Pied oystercatcher



Photo: Geoff Moon

Pied stilt



Photos: Geoff Moon

Banded dotterel

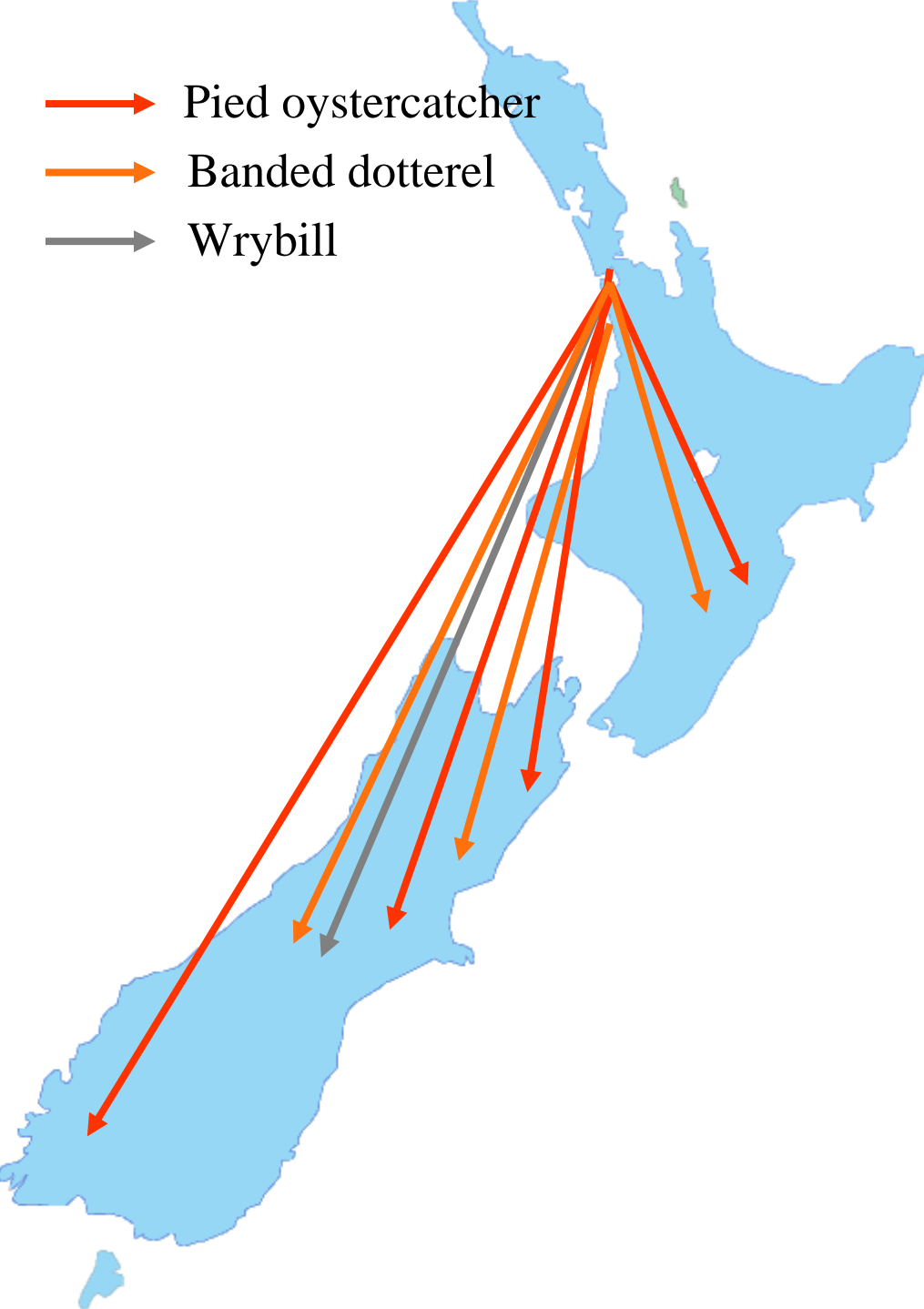


NZ dotterel

Wrybill

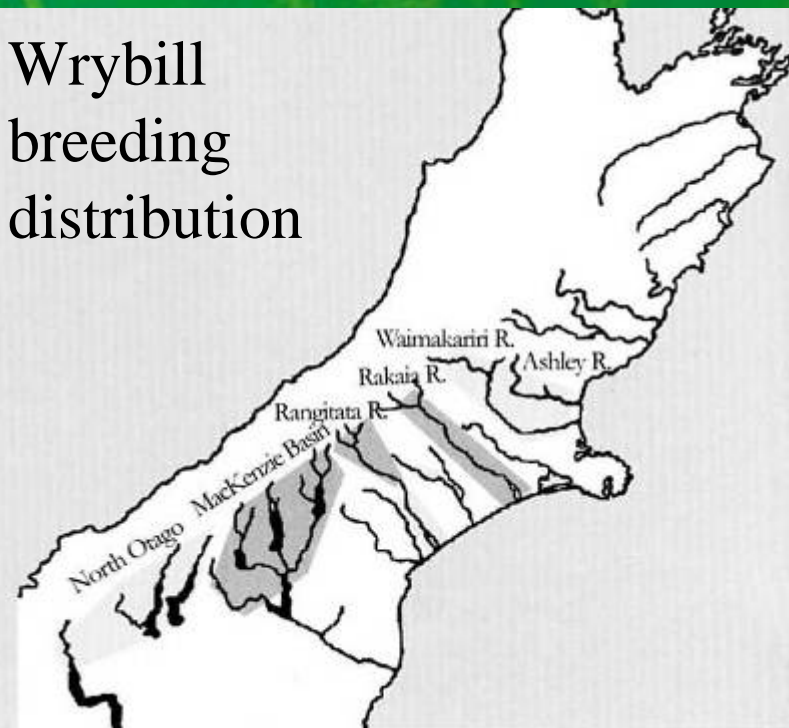


- Pied oystercatcher
- Banded dotterel
- Wrybill



Internal migrations of native waders between the Manukau and southern breeding grounds

Wrybill
breeding
distribution



Arctic migrants

Bar-tailed godwit



Photo: Geoff Moon

Lesser knot



Photo: Brian Chudleigh

Turnstone



Photo: Brian Chudleigh

Curlew sandpiper



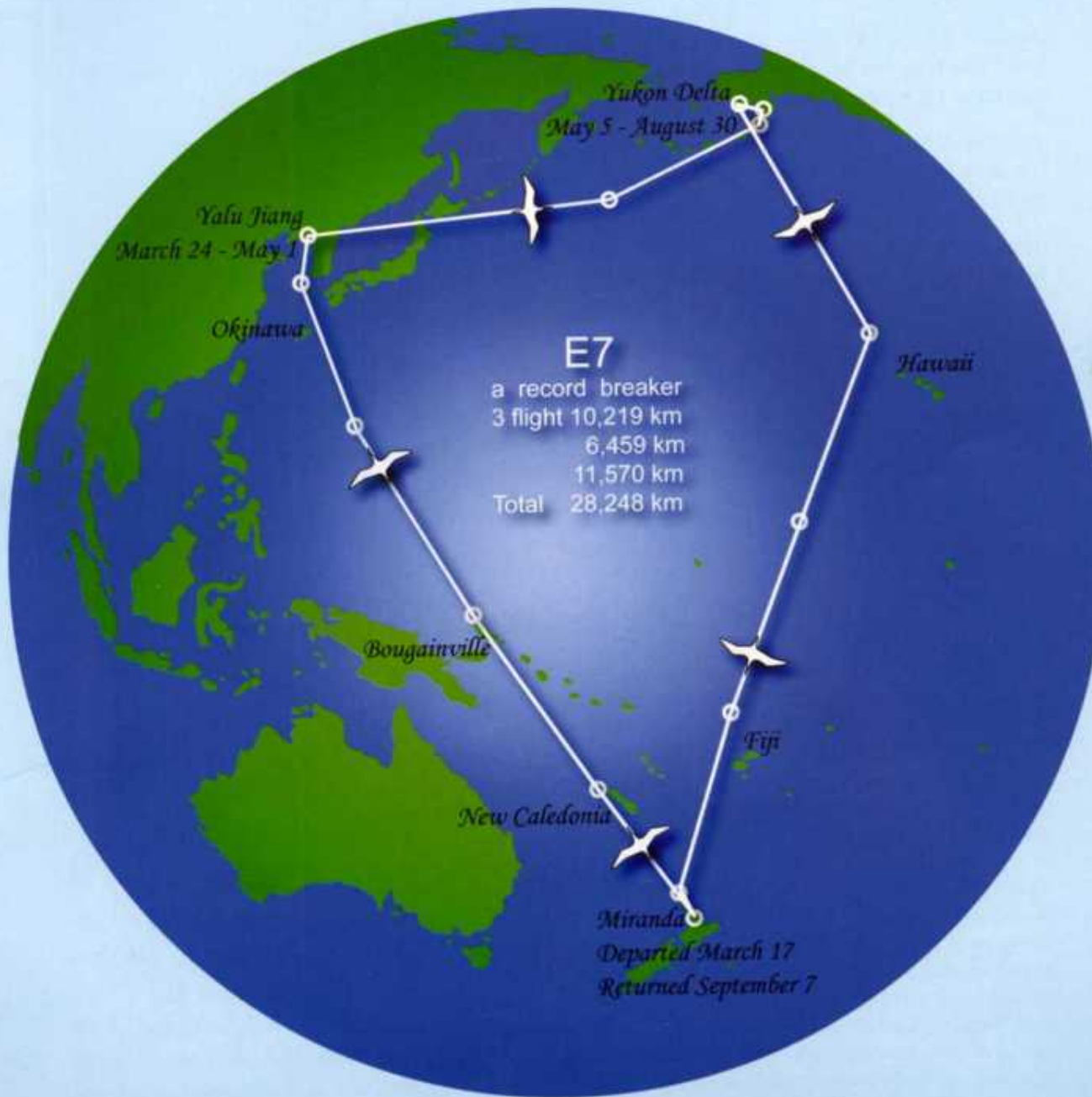
Photo: Folkert Nieuwland

Arctic migrants

Bar-tailed Godwit

Migration path
of godwit E7 in
2007 from
Miranda to the
Yukon Delta in
Alaska

Manukau godwits
follow the same
migration route



From: Miranda Naturalists' Trust News, Nov. 2007



Seasonal changes in species and numbers

August:

Wrybills and pied oystercatchers depart for South Island riverbed breeding sites

September:

Arctic breeding godwits, knots and others arrive

January-February

Oystercatchers and wrybills return
(Total wader numbers reach annual peak in harbour)

March

Arctic migrants depart

Photo: Geoff Moon

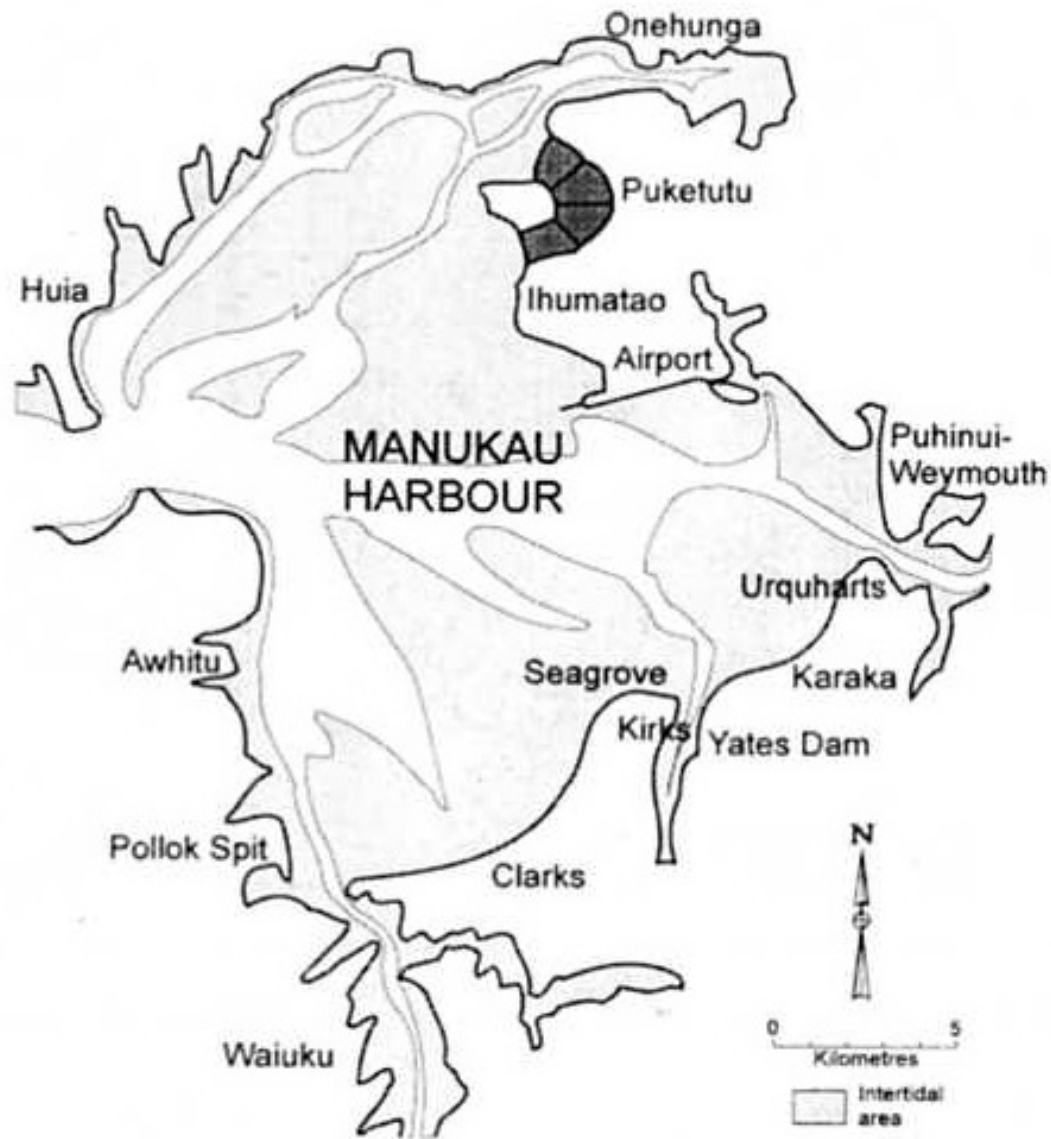
Ornithological Society Counts

Surveys of some species and some key roosts from early 1940s by Dick Sibson & Ross McKenzie

Formal summer and winter census counts at key high tide roosts by OSNZ members began in 1960. An unbroken count record has been maintained since then.



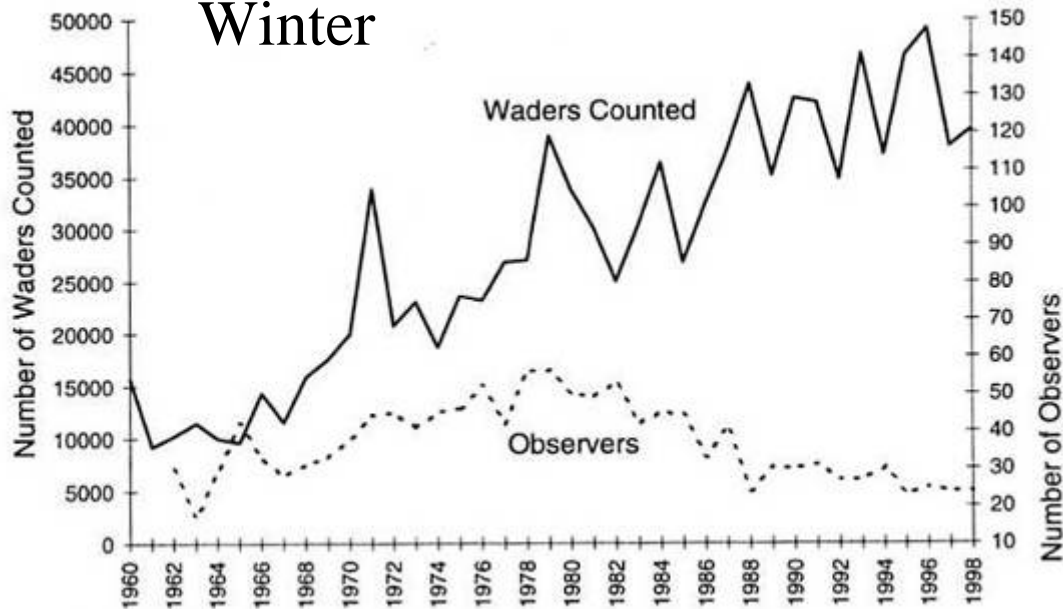
Photo: Russell Thomas



Key wader roosts and count sites on Manukau Harbour



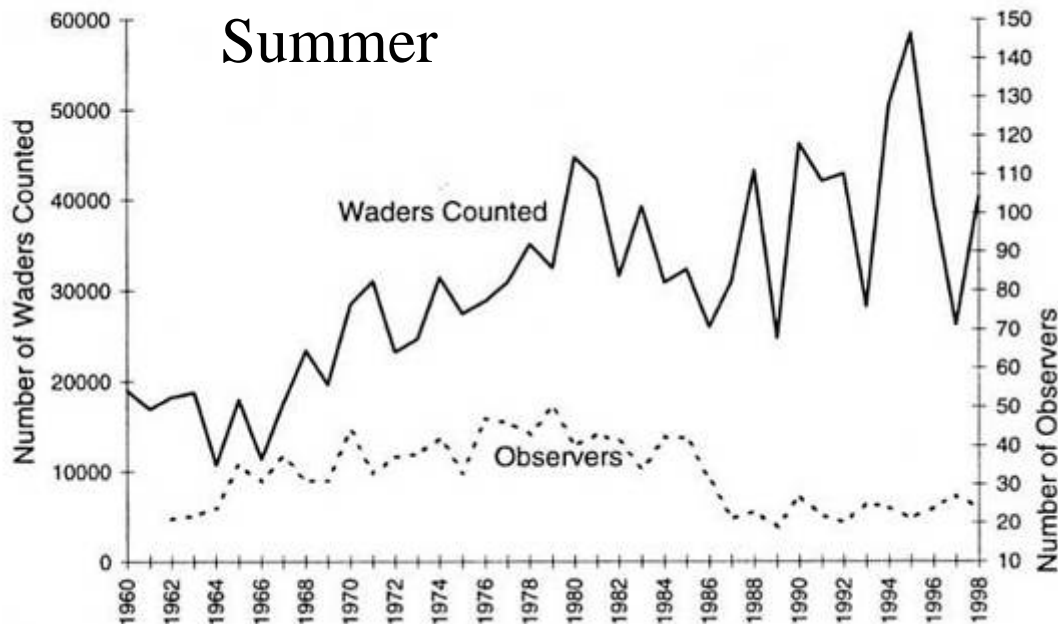
Winter



Total numbers of waders counted and observers present, OSNZ Manukau winter and summer censuses, 1960 - 1998

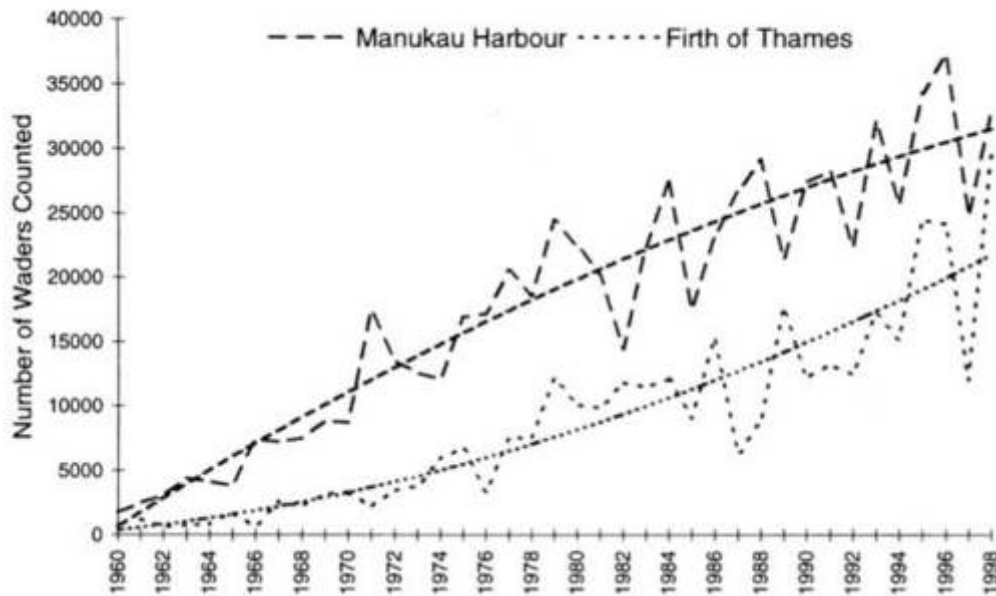
Wader numbers have increased in both winter and summer counts.

Summer



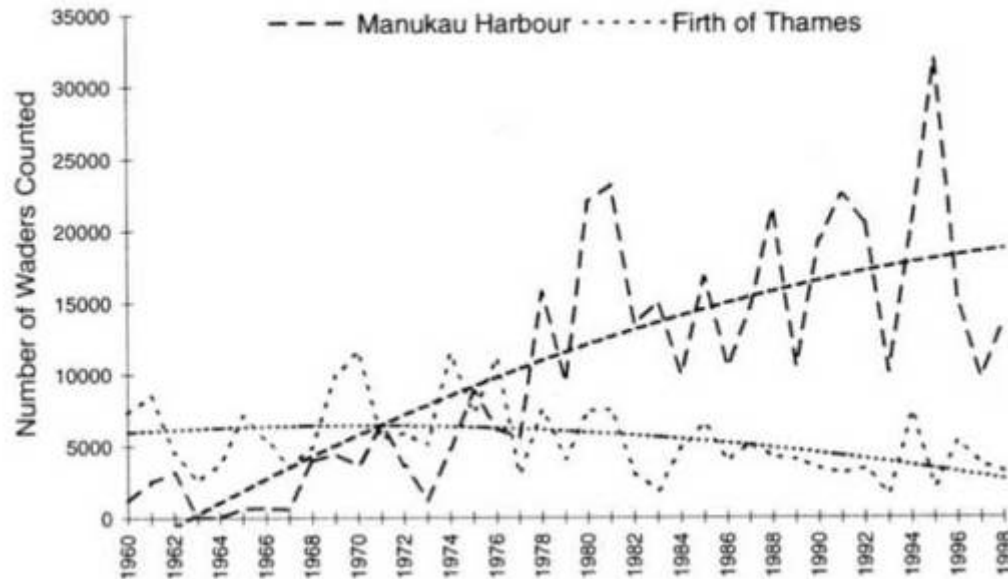
Source: Veitch & Habraken 1999





Main reasons for increases

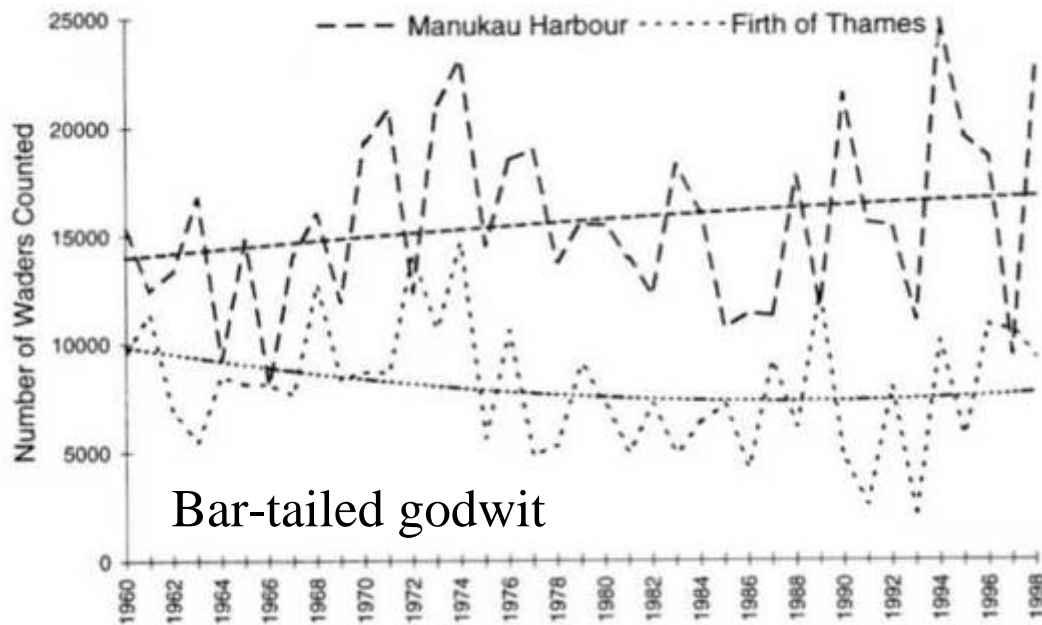
An 8 fold increase in Pied oystercatchers in winter counts during the 1960-1998 period. Oystercatchers have increased in NZ following ban on shorebird shooting in 1940. Oystercatchers also now breeding on farmland as well as riverbeds.



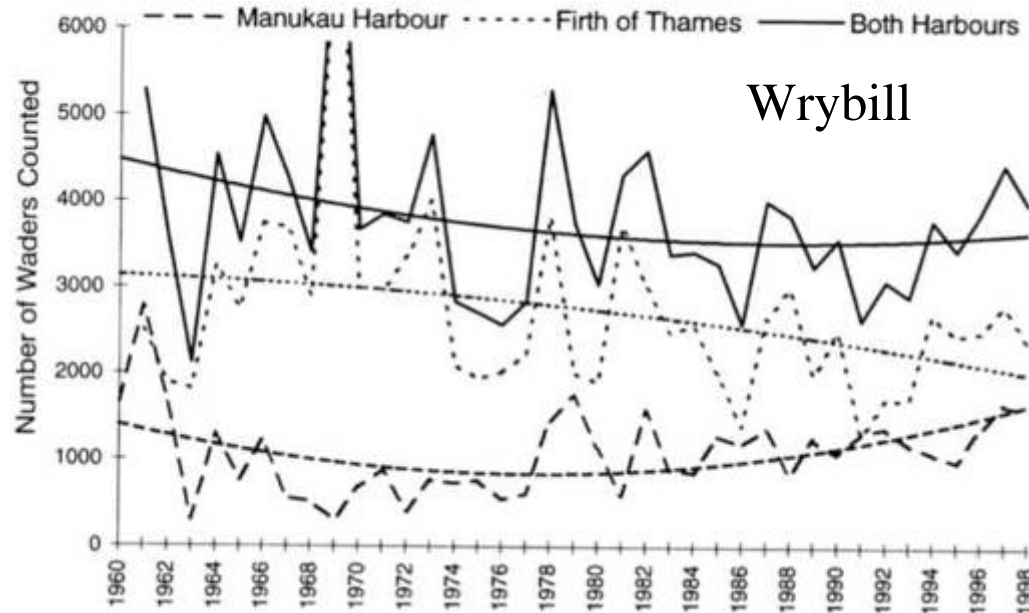
Lesser knots have also increased significantly, contributing to increase in total wader numbers in summer censuses.

Source: Veitch & Habraken 1999





Godwit numbers have been fairly stable during the 1960-1998 period.



Wrybill numbers have increased slightly in the Manukau, but have declined in the Firth of Thames. Overall the population has declined a little.

Source: Veitch & Habraken 1999



Threatened species

Wrybill

- Global population of c.5000
- 90% winter in the Manukau and Firth of Thames
- c.1500 regularly in Manukau



Photo: Geoff Moon

20% of the global wrybill population at roost on one factory roof in Otahuhu!



Photo: John Dowding

Threatened species

NZ dotterel

- Global population c.1700
- Up to 70 occur in Manukau
- Breeds at Mangere, near airport, and along southern coastline near Karaka



Photo: Sharon Kast

- Nests are very vulnerable to predators
- Males incubate during the night, so at risk to cat predation



Photo: Geoff Moon

Past, present and future threats

- Changes to catchment – forests to farms and urban areas
- Runoff with sediment, pesticides and pollutants
- Sewage and industrial effluent discharges
- Reclamations, e.g. airport
- Spread of Pacific oysters and *Spartina*
- Fluctuations in abundance of *Zostera* beds
- Recent rapid expansion in extent of mangroves
- Fishing and recreational activities

Photo: Alastair Jamieson

Restoration initiatives

- Ban on shorebird shooting in 1940
- Closure of many meat processing plants in Mangere Inlet
- Improved quality of sewage discharged from Mangere WTP
- Better management of dairy effluent
- Riparian plantings in rural and some urban catchments
- Community pest control projects to protect nesting shorebirds
- Control of *Spartina*
- Removal of the Mangere WTP oxidation ponds



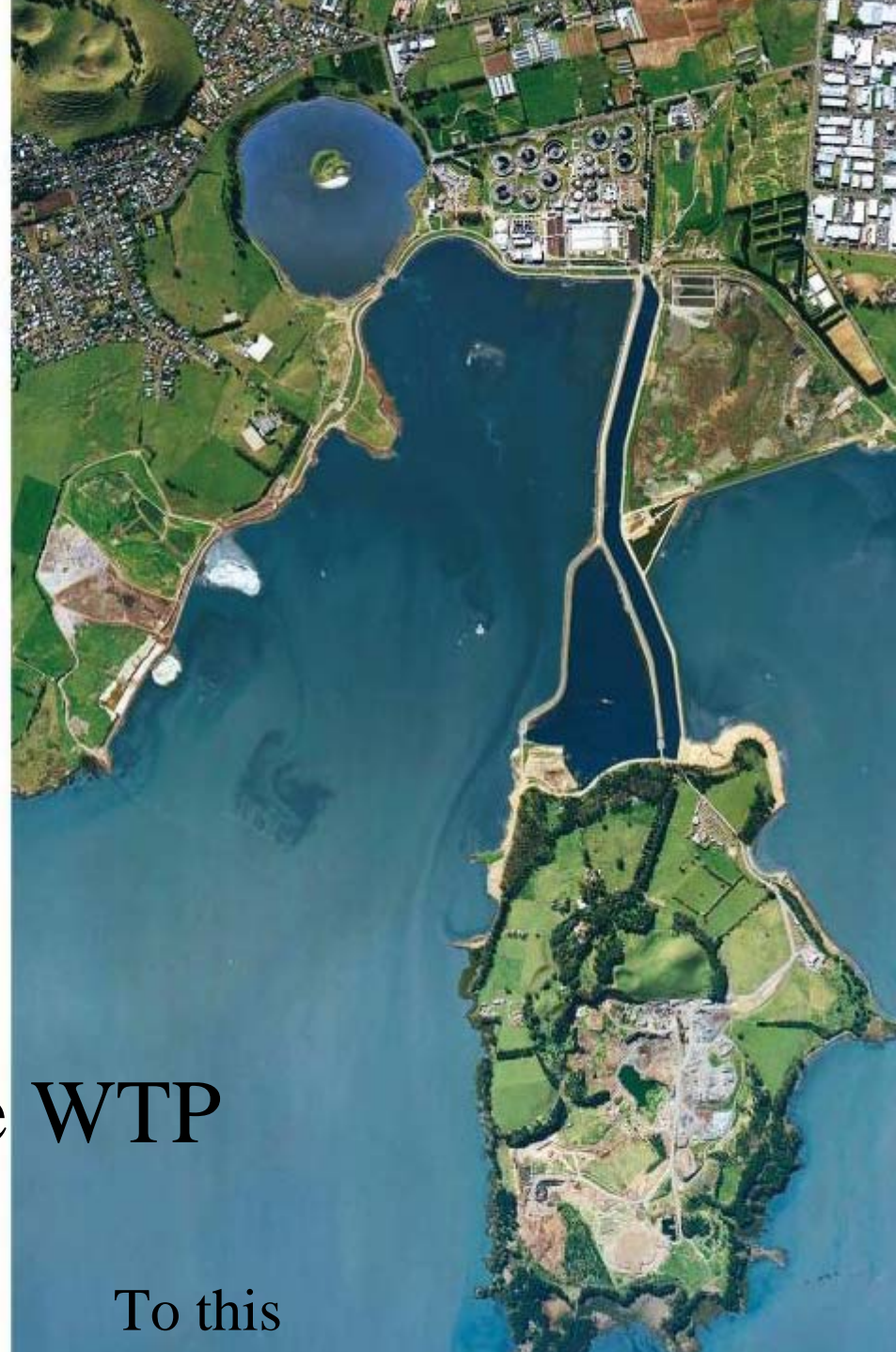
Photos:
Geoff Moon



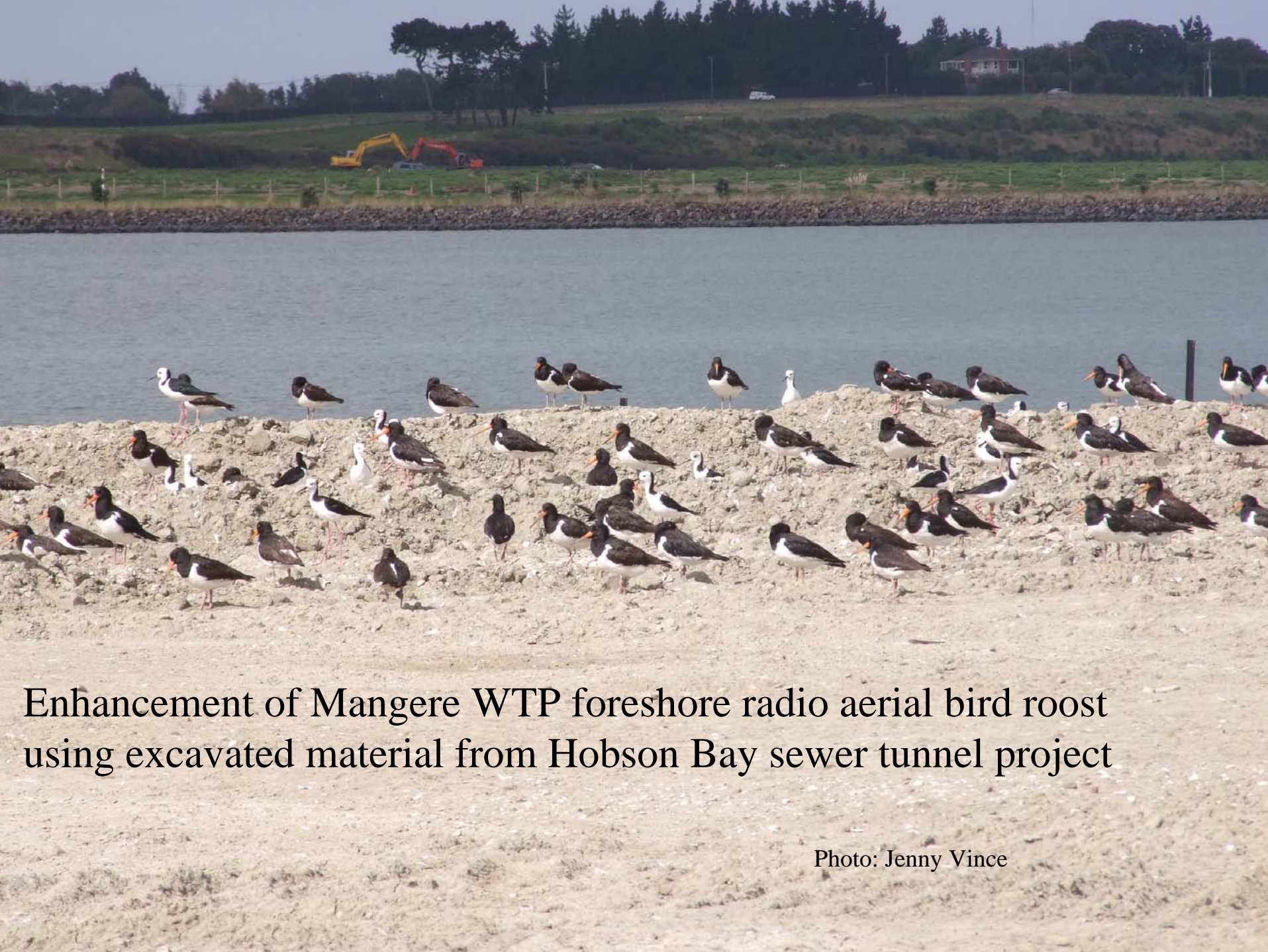


Mangere WTP

From this



To this



Enhancement of Mangere WTP foreshore radio aerial bird roost
using excavated material from Hobson Bay sewer tunnel project

Photo: Jenny Vince

Future management

- Need ongoing improvement to all runoff into harbour
- Animal pest and weed control at key roosts
- Ongoing monitoring through census counts
- Whole harbour approach needed to ensure integrity of roosts
 - Existing roosts are finite and must be kept free of mangrove encroachment
 - Roosts need protection from human disturbance
 - These measures will help avoid conflicts with airport

Photo: Alastair Jamieson

